



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,039	06/15/2000	Oikwan Tsang	E0902	9154

7590

09/10/2003

Jonathan A Platt
Renner Otto Boisselle & Sklar LLP
19th Floor
1621 Euclid Ave
Cleveland, OH 44115

EXAMINER

LE, DIEU MINH T

ART UNIT

PAPER NUMBER

2184

DATE MAILED: 09/10/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,039

Applicant(s)

TSANG ET AL.

Examiner

Dieu-Minh Le

Art Unit

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Part III DETAILED ACTION

Specification

1. Claims 1-21 are presented for examination.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features must be shown in the drawings. All the rectangular boxes also needed to be labels. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

Art Unit: 2184

art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable Kerstein (US Patent 6,236,643) in view of Jeng (US Patent 5,892,768).

As per claim 1:

Kerstein substantially teaches the invention. Kerstein teaches:

- a network medium interface [abstract, fig. 1, col. 4, lines 51-65]

comprising:

- an external interface [fig. 1, col. 5, lines 22-48];
- a switchable connection (i.e., network switch with multiport switch)configured to either internal and/or external interfaces [fig. 1-2, col. 5, lines 50-54];

Kerstein does not explicitly teach:

- first and second block for transmitting and receiving.

However, Kerstein does disclose capability of:

- multiport data switch configured for transmitting and receiving data to and from a network [abstract, fig. 1, col. 9, lines 22-25] comprising:
 - a multiport switch includes a media independent interface (MII) that provides connectivity to physical device (PHY), a server, a router to other networks or communication to other networks via data transmitting or receiving [col. 4, lines 61-65];

- a multiport switch that enables an external entity to control operation by MAC interface, a PCI interface via expansion bus [fig. 1, col. 5, lines 41-49].

In addition, Jeng explicitly teaches:

- 10/100 Base Ethernet to T1/E1 HDSL converter method [abstract, fig. 2, col. 1, lines 5-10];

comprising:

- Ethernet media independent interface (MII) [fig. 2, col. 2, lines 41-46];
 - a connectivity among MAC, PHY, other communication device via data bus [fig. 2, col. 3, lines 58 through col. 4, lines 24];
 - transmitting 4 bit MII via data interface [col. 10, lines 36-37];
 - Ethernet port and T1 interface used for data transmitting and receiving between communication devices via data bus [col. 1, lines 58 through col. 2, lines 10].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made first, to realize the Kerstein's multiport data switch configured for transmitting and receiving data to and from a network comprising a multiport switch includes a media independent interface (MII) that provides connectivity to physical device (PHY), a server, a router to other networks or communication to other networks via data transmitting or receiving as being the first and second block for transmitting and receiving as claimed by Applicant. This is because the Kerstein's multiport data switch configured for transmitting and

Art Unit: 2184

receiving data to and from a network does perform data transmission via multiports (i.e., first and second blocks) to allowing computing devices to transmitting and/or receiving data to/and from each other. It would have been obvious to ^{one of} ~~an~~ ordinary skill in the art to corresponding the "blocks" to "ports" since these are used as data interfaces within the network medium; second, one would modify the Kerstein's multiport data switch configured for transmitting and receiving data to and from a network to explicitly including **Ethernet port and T1 interface used for data transmitting and receiving between communication devices via data bus** as taught by Jeng's 10/100 Base Ethernet to T1/E1 HDSL converter method in supporting data transmission via data interfaces or ports or blocks.

This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so to provide the network interface environment and more specifically to a network switchable interfaces with a mechanism to enhance data performance, data availability/reliability, and data exchanging operation in ordering to improving data flexibility in the configuration/reconfiguration of network interface ports . It is further obvious because by utilizing this approach, the network medium interface via internal and external connections can be realized in high performance throughput with a high reliability and flexibility environment. That will correctly provide optimum data availability and transmission throughput among end users real-time communication and execution.

As per claims 2-5:

Kerstein substantially teaches the invention. Kerstein teaches:

- a network medium interface [abstract, fig. 1, col. 4, lines 51-65]

comprising:

- an external interface [fig. 1, col. 5, lines 22-48];
- a switchable connection (i.e., network switch with multiport switch)configured to either internal and/or external interfaces [fig. 1-2, col. 5, lines 50-54];
- a multiport switch includes a media independent interface (MII) that provides connectivity to physical device (PHY), a server, a router to other networks or communication to other networks via data transmitting or receiving [col. 4, lines 61-65];
- a multiport switch that enables an external entity to control operation by MAC interface, a PCI interface via expansion bus [fig. 1, col. 5, lines 41-49].

In addition, Jeng explicitly teaches:

- 10/100 Base Ethernet to T1/E1 HDSL converter method [abstract, fig. 2, col. 1, lines 5-10];

comprising:

- **Ethernet media independent interface (MII) [fig. 2, col. 2, lines 41-46];**
 - a connectivity among MAC, PHY, other communication device via data bus [fig. 2, col. 3, lines 58 through col. 4, lines 24];
 - transmitting 4 bit MII via data interface [col. 10, lines 36-37];

Art Unit: 2184

- transmitting and receiving data in four bit wide data stream [col. 10, lines 36-37].

As per claims 6-11:

Kerstein substantially teaches the invention. Kerstein teaches:

- a network medium interface [abstract, fig. 1, col. 4, lines 51-65]

comprising:

- an external interface [fig. 1, col. 5, lines 22-48];
- a switchable connection (i.e., network switch with multiport switch) configured to either internal and/or external interfaces [fig. 1-2, col. 5, lines 50-54];
- a multiport switch (i.e., first and second port switches) includes a media independent interface (MII) that provides connectivity to physical device (PHY), a server, a router to other networks or communication to other networks via data transmitting or receiving [col. 4, lines 61-65];
- a multiport switch that enables an external entity to control operation by MAC interface, a PCI interface via expansion bus [fig. 1, col. 5, lines 41-49].

Kerstein does not explicitly teach:

- third block for transmitting and receiving.

However, Kerstein does disclose capability of:

- multiport data switch configured for transmitting and receiving data to and from a network [abstract, fig. 1, col. 9, lines 22-25] comprising:

In addition, Jeng explicitly teaches:

- 10/100 Base Ethernet to T1/E1 HDSL converter method
[abstract, fig. 2, col. 1, lines 5-10];

comprising:

- **Ethernet media independent interface (MII) [fig. 2, col. 2, lines 41-46];**
 - a connectivity among MAC, PHY, other communication device via data bus [fig. 2, col. 3, lines 58 through col. 4, lines 24];
 - transmitting 4 bit MII via data interface [col. 10, lines 36-37];
- **Ethernet port and T1 interface used for data transmitting and receiving between communication devices via data bus [col. 1, lines 58 through col. 2, lines 10].**

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to realize the combination of the Kerstein's multiport data switch configured for transmitting and receiving data to and from a network comprising a multiport switch includes a media independent interface (MII) that provides connectivity to physical device (PHY), a server, a router to other networks or communication to other networks via data transmitting or receiving and Jeng's 10/100 Base Ethernet to T1/E1 HDSL converter method including Ethernet port and T1 interface used for data transmitting and receiving between communication devices via data bus do teach the Applicant's third block feature. This is because the "block" is the "port" used to ensuring communication devices transmitting and receiving data between or among each other for performing data operation. And

Art Unit: 2184

it is further obvious for the same reasons set forth as described in claim 1, **supra**.

As per claims 12-21:

These claims are similar to claims 1-11. The only minor different is that claim 12 introduce the evaluation output of the block.

However, Kerstein teaches:

- a network medium interface [abstract, fig. 1, col. 4, lines 51-65]

comprising:

- an external interface [fig. 1, col. 5, lines 22-48];
- reconfiguration the device connection (i.e., multiport data switch configured for transmitting and receiving data to and from a network) [abstract, fig. 1, col. 9, lines 22-25]
- **inputting test signal (i.e., selecting port, setting data, and transmitting data)** [fig. 1, col. 9, lines 26-30];
- **evaluating output (i.e., adjusting data values, determining data at port)** [col. 9, lines 30-42].
- a switchable connection (i.e., network switch with multiport switch)configured to either internal and/or external interfaces [fig. 1-2, col. 5, lines 50-54];

In addition, Jeng explicitly teaches:

- 10/100 Base Ethernet to T1/E1 HDSL converter method [abstract, fig. 2, col. 1, lines 5-10];

comprising:

- **Ethernet media independent interface (MII)** [fig. 2, col. 2, lines 41-46];

Art Unit: 2184

- a connectivity among MAC, PHY, other communication device via data bus [fig. 2, col. 3, lines 58 through col. 4, lines 24];
- transmitting 4 bit MII via data interface [col. 10, lines 36-37].

Therefore, these claims are also rejected under the same rationale applied against claims 1-11. **In addition, all of the limitations have been noted in the rejection as per claims 1-11.**

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. A shortened statutory period for response to this action is set to expired THREE (3) months, ZERO days from the date of this letter. Failure to respond within the period for response will cause the application to be abandoned. 35 U.S.C. 133.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dieu-Minh Le whose telephone number is (703) 305-9408. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel, can be reached on (703)305-9713. The fax phone number for this Group is (703)746-7240.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 746-7239, (for formal communications
intended for entry)

Or:

(703) 746-7240 (for informal or draft
communications, please label "PROPOSED" or
"DRAFT")

Hand-delivered responses should be brought to Crystal
Park II, 2121 Crystal Drive, Arlington. VA., Sixth
Floor (Receptionist).


DIEU-MINH THAI LE
PRIMARY EXAMINER
ART UNIT 2184